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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,410	02/07/2002	Udo Bickers	514413-3911	1061
20999	7590	02/21/2007	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			PRYOR, ALTON NATHANIEL	
		ART UNIT	PAPER NUMBER	
		1616		
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE		DELIVERY MODE	
3 MONTHS	02/21/2007		PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/049,410	BICKERS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Alton N. Pryor	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 05 December 2006.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 14,15 and 17-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 14,15,17-30 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

I. Rejection of claims 14,15,17-20 under 35 USC 102(b) as anticipated by Narayanan et al (USPN 5231070; 7/27/93) will be maintained in light of amendment filed 12/5/06 for reason on record and reason as follows. Claims 22,24,27,29, and 30 are added to this rejection.

Applicant argues that Narayanan does not anticipate “controlling the growth of undesirable harmful plants pre-emergently can be accomplished with a post-emergences herbicide” but rather teaches “a method of inhibiting the leaching of an active plant growth regulating agrichemical”. Examiner argues that Narayanan does anticipate the instant invention. Firstly, Narayanan teaches a polymer / agrichemical composition is applied to the plant or surrounding soil area in a pre-emergent application. See column 2 lines 64-66. Examiner also argues that post-emergent herbicides such as glyphosate, and bilanafos can be added to the composition. See column 4 lines 20-32. Note that instant specification discloses that said herbicides are post-emergent herbicides at page 3 line 35. With respect to Narayanan teaching “a method of inhibiting the leaching of an active plant growth regulating agrichemical,” Examiner points out that the inhibition of leaching means the prevention of the agrichemical from moving from the site of application. Examiner argues that this teaching does not change the composition taught by Narayanan or the active step of application of the composition taught by Narayanan. The instant composition comprising a post-emergent herbicide plus acrylic polymer is taught by Narayanan. Narayanan also teaches the instant active step of applying the composition comprising a post-emergent

herbicide pre-emergently to soil. See column 2 line 64 – column 3 line 23, column 4 lines 20-32. Applicant argues that Narayanan also does not make the instant invention inherent. Examiner disagrees with Applicant since both Narayanan's invention and instant invention teaches the same active step of applying a composition comprising a post-emergent herbicide plus an acrylic polymer pre-emergently. See column 2 line 64 – column 3 line 23, column 4 lines 20-32.

Applicant argues that claim 17 is not anticipated by Narayanan. Applicant argues that Narayanan discloses "broad recitations regarding the nature of carrier material such as they can be viewed as encompassing of polymers based on acrylic acid or methacrylic acid." Applicant argues that Narayanan refers to a broad genus of alternative carriers preferably N-alkenyl lactam homopolymers. Examiner argues that broad claims can be anticipated by a broad teaching in the art. Note that instant claims comprise a Markush group consisting of polymer genus serving as carriers. Because of the broad list of carriers disclosed by the instant claims, it is reasonable to use a broad teaching of the carriers in the art to reject such broad claims. While it is true that Narayanan does disclose that N-alkenyl lactam homopolymers are preferred carriers, it is not necessary that Narayanan teaches an acrylic polymer in an example or as a preferred polymer in order to anticipated the instant invention. It is critical to note that the instant claims are broad and therefore it would be proper to use a broad teaching to anticipate the instant claims.

Applicant argues that based on the teaching of Narayanan, one of ordinary skill in the art would have been motivated to use post-emergent herbicides to

Art Unit: 1616

treat harmful plants post-emergently. Examiner argues that Narayanan anticipates the application of agrichemicals pre-emergently. Narayanan also teaches that the agrichemical include herbicides such as glyphosate and bilanafos which are post-emergent herbicides. See column 2 line 64 – column 3 line 23, column 4 lines 20-46. See also instant specification page 3 line 35.

II. Rejection of claims 14,15,17,19,20 under 35 USC 102(b) as anticipated by Sanders (USPN 5635447; 6/3/97) will be maintained in light of amendment filed 12/5/06 for reason on record and reason as follows. Claims 22,24,27,29, and 30 are added to this rejection.

Applicant argues that Sanders does not anticipated “controlling the growth of undesirable harmful plants pre-emergently can be accomplished with a post-emergences herbicide” but rather teaches “enhancing the absorption/penetration of an herbicide into a plant cell/tissue”. Examiner argues that Sanders does anticipate the instant invention. Firstly, Sanders teaches a polymer / agrichemical composition is applied to the plant or surrounding soil area in a pre-emergent application. See column 2 line 36 – column 3 line 18. Examiner also argues that to the composition is added post-emergent herbicides such as glyphosate, and atrazine. See column 1 lines 10-41, column 2 lines 19-31. Note that instant specification discloses that said herbicides are post-emergent herbicides at page 3 line 35. With respect to Sanders’ teaching “enhancing the absorption/penetration of an herbicide into a plant cell/tissue,” Examiner points out that the enhancing absorption/penetration is to the prevention of the agrichemical from moving from the site of application. Examiner argues that this

teaching does not change the composition taught by Sanders or the active step of application of the composition taught by Sanders. The instant composition comprising a post-emergent herbicide plus polyacrylic acid is taught by Sanders. Sanders also teaches the instant active step of applying the composition comprising a post-emergent herbicide pre-emergently to soil. See column 2 line 36 – column 3 line 18. Applicant argues that Sanders also does not make the instant invention inherent. Examiner disagrees with Applicant since both Sanders' invention and instant invention teaches the same active step of applying a composition comprising a post-emergent herbicide plus polyacrylic acid pre-emergently. See column 2 line 36 – column 3 line 18.

Applicant argues that claim 17 is not anticipated by Sanders. Applicant argues that Sanders discloses "broad recitations regarding the nature of carrier material such as they can be viewed as encompassing of polymers based on acrylic acid or methacrylic acid." Applicant argues that Sanders refers to a broad genus of alternative carriers preferably polyaspartic acid. Examiner argues that broad claims can be anticipated by a broad teaching in the art. Note that instant claims comprise a Markush group consisting of polymer genus serving as carriers. Because of the broad list of carriers disclosed by the instant claims, it is reasonable to use a broad teaching of the carriers in the art to reject such broad claims. While it is true that Sanders does disclose that polyaspartic acid is the preferred carrier, it is not necessary that Sanders teaches an acrylic polymer in an example or as a preferred polymer in order to anticipate the instant invention. It is critical to note that the instant claims are broad and therefore it would be proper to use a broad teaching to anticipate the instant claims.

Applicant argues that based on the teaching of Sanders, one of ordinary skill in the art would be motivated to use post-emergent herbicides to treat harmful plants post-emergently. Examiner argues that Sanders anticipates the application of agrichemicals pre-emergently. Sanders also teaches that the agrichemical include herbicides such as glyphosate and atrazine, which are post-emergent herbicides. See column 1 lines 10-41, column 2 line 19 – column 3 line 18.

With respect to Dr. Bicher's Declaration unexpected data is presented for post-emergent herbicide (paraquat, glyphosate) being used pre-emergently. However, the claims are much broader than the scope of results presented in the examples. Also, examples in Declaration do not specify carriers as recited in claims.

Examiner maintains that Narayanan and Sanders employ their herbicidal compositions pre and post –emergently.

### III. New Rejections

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21,23,25,26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lovejoy (DE 2947073; 6/4/80) and The Agrochemicals Handbook, 3<sup>rd</sup> Edition A0810/ Aug 91 or A0310/ Aug 91 as applied to claims rejected using Narayanan or Sanders above and on record. Narayanan or Sanders teach all the limitations of

claim 23 and 28 except for the invention comprising silicon dioxide. See 102(b) rejections above and on record. However, Lovejoy teaches a herbicidal invention comprising silicon dioxide for the purpose of preventing the caking of a herbicidal formulation. One would have been expected to modify the invention of Narayanan or Sanders to include the silicon dioxide taught by Lovejoy. One would have motivated to do this in order to make a stable herbicide formulation that has reduced caking. With respect to the instant invention not comprising glufosinate and / or paraquat, it would have been obvious to one having ordinary skill in the art to further modify the invention of Lovejoy –Narayanan or –Sanders to include glufosinate and / or paraquat. One would have been motivated to this since all actives are herbicides. It is obvious to combine actives having the same utility with the expectation that the final combination would have the same utility.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 14,15,17,19-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term “substantially” as it relates to amount of herbicide taken up by green parts of the plants. With respect to claims 23

and 28, "silicon dioxide" is new matter since it can not be identified in the original specification.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Telephonic Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alton N. Pryor whose telephone number is 571-272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alton Pryor  
Primary Examiner  
AU 1616